

Appl. No.:09/928,133
Amdt. dated 07/18/2005
Reply to Office action of March 22, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Currently amended) A apparatus for detecting adversarial activity on a network, comprising:

a memory adapted to store a host table;

a key exchanger adapted to derive a cipher key

a translator adapted to translate predetermined portions of packet header information of a data packet according to a cipher algorithm keyed by the cipher key, wherein the predetermined portions include an address;

a mapping device adapted to map the address to the host table;

a host resolution device adapted to determine addresses of devices on the network when the address does not match an entry in the host table and to supplement the host table with any additional addresses, wherein said mapping device is further adapted to again map the address to host table following supplementation; and

an actuator adapted to trigger a security device when the address does not match an entry in the host table.

2. (Original) An apparatus as set forth in Claim 1, wherein the security device is a logging device adapted to log the data packet.

3. (Original) An apparatus as set forth in Claim 1, wherein the security device is adapted to signal an alarm when triggered.

4. (Currently amended) An apparatus as set forth in Claim 1, ~~further comprising:~~ wherein said host resolution device is adapted to determine the addresses of the devices on the network ~~derive the host table using an address resolution protocol.~~

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5. (Original) An apparatus as set forth in Claim 1, further comprising:
a network device adapted to place the data packet onto a network when the address maps to the host table.
6. (Currently amended) A method for detecting adversarial activity on a network, comprising:
storing a host table;
deriving a cipher key;
translating predetermined portions of packet header information of a data packet according to a cipher algorithm keyed by the cipher key, wherein the predetermined portions include an address;
mapping the address to the host table;
determining addresses of devices on the network when the address does not match an entry in the host table and supplementing the host table with any additional addresses prior to repeating the mapping of the address to the host table; and
triggering a security device when the address does not match an entry in the host table.
7. (Original) A method as set forth in Claim 6, further comprising:
logging the data packet when the address does not match an entry in the host table.
8. (Original) A method as set forth in Claim 6, further comprising:
signaling an alarm when the security device is triggered.
9. (Currently amended) A method as set forth in Claim 6, ~~further comprising:~~
~~deriving the host table~~ determining addresses of devices on the network comprises determining addresses of devices on the network using an address resolution protocol.
10. (Original) A method as set forth in Claim 6, further comprising:

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placing the data packet onto a network when the address maps to the host table.

11. (Currently amended) A device for detecting adversarial activity on a network, comprising:

means for storing a host table;

means for deriving a cipher key;

means for translating predetermined portions of packet header information of a data packet according to a cipher algorithm keyed by the cipher key, wherein the predetermined portions include an address;

means for mapping the address to the host table;

means for determining addresses of devices on the network when the address does not match an entry in the host table and supplementing the host table with any additional addresses, wherein said means for mapping is further adapted to again map the address to the host table following its supplementation; and

means for triggering a security device when the address does not match an entry in the host table.

12. (Original) A device as set forth in Claim 11, further comprising:

means for logging the data packet when the address does not match an entry in the host table.

13. (Original) A device as set forth in Claim 11, further comprising:

means for signaling an alarm when the security device is triggered.

14. (Currently amended) A device as set forth in Claim 11, ~~further comprising:~~
means for deriving the host table wherein said means for determining addresses of devices on the network is further capable of determining addresses of devices on the network using an address resolution protocol.

15. (Original) A device as set forth in Claim 11, further comprising:

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means for placing the data packet onto a network when the address maps to the host table.

16. (Currently amended) A bastion host adapted for processing packet header information of a data packet, the bastion host being operable to:

- store a host table;
- derive a cipher key;
- translate predetermined portions of packet header information of a data packet according to a cipher algorithm keyed by the cipher key, wherein the predetermined portions include an address;
- map the address to the host table;
- determine addresses of devices on the network when the address does not match an entry in the host table and supplement the host table with any additional addresses prior to repeating the mapping of the address to the host table; and
- trigger a security device when the address does not match an entry in the host table.

17. (Original) The bastion host as set forth in Claim 16, the bastion host being further operable to log the data packet when the address does not match an entry in the host table.

18. (Original) The bastion host as set forth in Claim 16, the bastion host being further operable to signal an alarm when the security device is triggered.

19. (Currently amended) The bastion host as set forth in Claim 16, the bastion host being further operable to determine the addresses of devices on the network ~~deriving the host table~~ using an address resolution protocol.

20. (Original) The bastion host as set forth in Claim 16, the bastion host being further operable to place the data packet onto a network when the address maps to the host table.

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21. (New) An apparatus as set forth in Claim 1, wherein said key exchanger is further adapted to repeatedly derive a cipher key with the cipher key derived by said key exchanger changing over time.

22. (New) A method as set forth in Claim 6, wherein deriving the cipher key comprises repeatedly deriving a cipher key such that the resulting cipher key changes over time.

23. (New) A device as set forth in Claim 11, wherein said means for deriving a cipher key is further adapted to repeatedly derive a cipher key such that the resulting cipher key changes over time.

24. (New) A bastion host as set forth in Claim 16, the bastion host being further operable to repeatedly derive a cipher key such that the resulting cipher key changes over time.